EXHIBIT A

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION STUDENT-ATHLETE CONCUSSION INJURY LITIGATION	)	**MDL No. 2492**
	)	**Master Docket No. 1:13-cv-09116**
	)	**This Document Relates To: All Cases**
	)	**Judge John Z. Lee**
	)	**Magistrate Judge Geraldine Soat Brown**

SUPPLEMENTAL SUBMISSION OF THE NCAA REGARDING ADEQUACY OF REPRESENTATION AND THE SCOPE OF THE PROPOSED SETTLEMENT CLASS

Defendant National Collegiate Athletic Association ("NCAA") makes the following submission regarding adequacy of representation and the scope of the proposed Settlement Class:[1]

I. INTRODUCTION

At the October 23, 2014 hearing, the Court raised the adequacy of Plaintiffs as class representatives and the scope of the proposed Settlement Class, with a particular emphasis on the inclusion of participants in both Contact Sports as well as other sports. These issues were, in turn, addressed by the counsel who filed Nichols in the submission they made on August 22, 2014. The NCAA did not seek leave at the time to respond to the Nichols submission in an effort to avoid unnecessary briefing, but since the adequacy and scope issues were a focus of the

[1] Capitalized terms in this submission have the meaning ascribed to them in the Settlement Agreement, which itself is Exhibit A to the amended motion for preliminary approval of Plaintiffs Adrian Arrington, et al. ("Plaintiffs"). See Am. Settlement Agt. (Dkt. #92).

October 23, 2014 hearing, the NCAA has sought leave to file this short paper in the sincere hope it may be of assistance to the Court in its deliberations.

II. THE PROPOSED SETTLEMENT AGREEMENT

Throughout the course of the mediation, the Parties and their counsel went to considerable lengths to avoid any differentiation or discrimination between the members of the Settlement Class. See Am. Settlement Agt. (Dkt. #92) at passim. To that end, all student-athletes are equally eligible for the core relief being provided under the Settlement Agreement, namely access to screening and medical monitoring by physicians specializing in Post-Concussion Syndrome ("PCS") and Chronic Traumatic Encephalopathy ("CTE"). See Am. Settlement Agt. (Dkt. #92) at ¶ IV(B).

As would be expected, the incidence of reported concussions varies from sport to sport, but the Parties could see no justification or advantage in depriving participants in some sports of the opportunity for medical monitoring simply because the reported incidence of concussions in those sports is lower than in others.[2] See id. Moreover, the discovery that was exchanged in Arrington plainly reflects instances of reported concussions in sports other than Contact Sports.[3]

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[2] Mindful of concerns expressed by the counsel who filed Walker and Morgan in their January 31, 2014 submission seeking to enjoin the then-ongoing mediation, the scope of the Settlement Class is also designed to hew closely to the broadest possible classes that were proposed in Arrington and Owens. See Walker and Morgan Mem. in Supp. of Mot. to Enjoin (Dkt. #6-1) at 1-8. Compare Am. Settlement Agt. (Dkt. #92) at ¶ II(D) ("All current or former student athletes who played an NCAA-sanctioned sport at an NCAA member institution on or prior to the Preliminary Approval Date"), with, e.g., Second Am. Compl. (Arrington Dkt. #135) at ¶ 227 (proposed class of all current and former student-athletes who experienced one or more head impacts while playing any NCAA sport).

[3] Contact Sports are defined in the Settlement Agreement as "football, lacrosse, wrestling, ice hockey, field hockey, soccer, and basketball, whether a men's or women's team." See Am. Settlement Agt. (Dkt. #92) at ¶ II(G).

See, e.g., Epidemiology of Collegiate Injuries, 42 J. Athletic Training at 316, Ex. A hereto (noting frequency of concussions in baseball, softball, gymnastics and volleyball).

Notably, the single instance where the Settlement Agreement differentiates between Contact Sports and other sports is Paragraph VIII(A), which addresses the sports in which "medical personnel with training in the diagnosis, treatment or management of concussions" must be present at games and available at practices.[4] See Am. Settlement Agt. (Dkt. #92) at ¶¶ VIII(A)(4)-(5). There is, however, no other instance anywhere in the Settlement Agreement where the distinction between Contact Sports and other sports results in any difference at all in terms of the relief being provided to members of the Settlement Class, the release that Settlement Class Members will provide or in the injunctive relief being proposed.[5] See, e.g., id. at ¶ IV(B)

[4] The Settlement Agreement requires the presence of such personnel at games in Contact Sports and the availability of such personnel at practices. See Am. Settlement Agt. (Dkt. #92) at ¶¶ VIII(A)(4)-(5). As discussed at the October 23, 2014 hearing, this requirement was limited to Contact Sports due to the higher frequency of reported concussions in those particular sports. See Oct. 23, 2014 Hr'g Tr., Ex. B hereto, at 11:10-12:12.

[5] Indeed, had the Parties proposed that the participants in some sports would not be eligible for medical monitoring or would have to meet different or more rigorous requirements before qualifying for relief, we suspect objectors would now be claiming that the Settlement Class is somehow under-inclusive, with objectors asking why persons who participated, for example, in tennis or in college football in 1960 should be treated differently from an athlete who played hockey in 2010. See, e.g., Mem. in Supp. of Motion to Enjoin (Dkt. #6-1) at 14-16 (arguing that excluding athletes who played sports prior to 2004 would render the class representatives inadequate). More fundamentally, however, we fail to see how it is in the interest of any members of the Settlement Class to deprive them of access to medical monitoring or to place greater restrictions on the access of some class members than on others. See disc. supra at 2-3. But the fact that there are reported concussions in virtually all (if not all) sports is a strong argument for inclusivity in our view. See, e.g., J. Hootman, et al., Epidemiology of Collegiate Injuries for 15 Sports, 42 J. Athletic Training 311, 316 (2007), Ex. A hereto.

(medical monitoring relief); id. at ¶¶ VIII(A)(1)-(3) (other injunctive relief); id. at ¶¶ XIV(A)(12) (release).[6]

III. RELEVANT CASE LAW ON ADEQUACY

The issue of adequacy does arise from time to time in the context of the approval process for class settlements. See, e.g., Amchem v. Windsor, 521 U.S. 591, 625-27 (1997); Uhl v. Thoroughbred Tech, 309 F.3d 978, 985 (7th Cir. 2002); Dewey v. Volkswagen, 681 F.3d 170, 182-90 (3d Cir. 2012). In situations where approval is not granted due to adequacy concerns, however, there is inevitably a conflict between members of the settlement class, and oftentimes, different levels or types of relief are being offered to class members who are differently situated. See, e.g., In re Literary Works, 654 F.3d 242, 251-55 (2d Cir. 2011) (reversing final approval on adequacy grounds, because "[a]ny improvement in the compensation of, for example, Category C claims would result in a commensurate decrease in the recovery available for Category A and B claims"); Dewey, 681 F.3d at 187 (holding that a settlement that divided a putative class of car owners into two groups that would receive different benefits "supports the inference that the representative plaintiffs are inadequate.").[7]

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[6] It was initially suggested at the October 23, 2014 hearing that the return-to-play ("RTP") guidelines proposed in the Settlement Agreement are limited to Contact Sports. See Oct. 23, 2014 Hr'g Tr., Ex. B hereto, at 7:17-22, 11:10-12. That error was later corrected, but it bears repeating that both the proposed RTP guidelines as well as baseline testing for all student-athletes at all three divisions of the NCAA will be implemented under the Settlement Agreement for both Contact Sports as well as all other NCAA sports. See Am. Settlement Agt. (Dkt. #92) at ¶¶ VIII(A)(1)-(3).

[7] Notably, the sorts of arguments that were made in Amchem and Dewey vis-a-vis adequacy have not been made here and could not credibly be made by counsel who filed Nichols. See Nichols' Response to Mot. for Prelim. Approval (Dkt. #83) at passim. While the "estimates" in the Nichols submission as to the portion of the Medical Monitoring Fund that will likely be expended on Medical Evaluations are grossly inaccurate for all the reasons already presented to the Court, there is no argument by anyone that the Medical Monitoring Fund will be insufficient

(continued...)

As the Supreme Court noted in Amchem, the purpose of the adequacy requirement in Fed. R. Civ. P. 23(a)(4) is to ensure that there are no material conflicts between the class representatives and the class they seek to represent:

> The adequacy inquiry under Rule 23(a)(4) serves to uncover conflicts of interest between named parties and the class they seek to represent.

Amchem, 521 U.S. at 625; see also, e.g., Uhl, 309 F.3d at 985 (Rule 23(a)(4) "requires the district court to ensure that there is no inconsistency between the named parties and the class they represent"); Rosario v. Livaditis, 963 F.2d 1013, 1018 (7th Cir. 1992) ("A class is not fairly and adequately represented if class members have antagonistic or conflicting claims."); In re AT&T Mobility, 270 F.R.D. 330, 343 (N.D. Ill. 2010) (citing Uhl and Rosario for same). In Amchem, however, there were serious conflicts, because the proposed settlement contemplated cash payouts to claimants both now and in the future based on some injuries and diseases but not others. See Amchem, 521 U.S. at 603-05; id. at 625-27. Furthermore, the proposed settlement in Amchem would have treated persons with current symptoms quite differently than persons without symptoms who later became symptomatic, as "the terms of the settlement reflect essential allocation decisions." Id. at 626. Moreover, class members in Amchem would have been providing the defendants with a broad release that encompassed all current and future bodily injury claims, including all claims of bodily injury for persons who were not symptomatic

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(...continued)
to address the needs of all qualified members of the Settlement Class, and thus, the dynamic that existed in Amchem and Dewey as between class members vying for limited funds simply does not exist here. See, e.g., id. at passim. But see Amchem, 521 U.S. at 627 ("[T]he terms of the settlement reflect essential allocation decisions designed to confine compensation."); Dewey, 681 F.3d at 187 (finding an intra-class conflict, because groups within the class entitled to different relief would have had to compete for a fund of $8 million); see also Am. Settlement Agt. (Dkt. #92) at ¶¶ IV(A)(5)-(8) (addressing contingency of depletion of Medical Monitoring Fund before expiration of Medical Monitoring Period).

at the time of final approval.[8] See Amchem, 521 U.S. at 603 (proposed settlement encompassed existing claims as well as "all claims not filed before January 15, 1993, involving compensation for present and future asbestos-related personal injury or death.").

The concerns articulated in Amchem, however, are fully consistent with the Seventh Circuit's guidance that in order to defeat adequacy, conflicts between class members and the class representatives must nevertheless be real and material. Johnson v. Meriter Health, 702 F.3d 364, 372 (7th Cir. 2012) ("Conflicts between class members are different from differences in class members' entitlements. . . . Conflicts of interest, as distinct from differences in entitlements, create an issue of adequacy of representation by requiring the class representative to choose between competing class members."); Abbott v. Lockheed, 725 F.3d 803 (7th Cir. 2013) ("[T]his court has never held, and Spano did not imply, that the mere possibility that a trivial level of intra-class conflict may materialize as the litigation progresses forecloses class certification entirely."); Sec'y of Labor v. Fitzsimmons, 805 F.2d 682, 697 (7th Cir. 1986)

[8] Similarly, the adequacy issue in Dewey arose from the fact that the settlement "divide[d] a single class into two groups of plaintiffs that receive[d] different benefits." Dewey, 681 F.3d at 187. Indeed, the settlement in Dewey divided the class into a "reimbursement group" and a "residual group," the latter not receiving any compensation until the claims of the former had been satisfied and then only if monies remained in the settlement fund. See id. In addition, "all representative plaintiffs [were] in the reimbursement group." See id. This situation created an intra-class conflict that prevented the named plaintiffs from adequately representing members of the class. See id. But in the case of the Settlement Agreement in this matter, Plaintiffs are entitled to the exact same core relief under the Settlement as all other members of the Settlement Class. See Am. Settlement Agt. (Dkt. #92) at ¶ IV(B); id. at ¶ VIII(A)(1)-(3); see also disc. supra at 2-4.

(holding that adequacy is defeated where proposed representatives and class members "have antagonistic or conflicting interests.").[9]

As noted above, there is no distinction between Plaintiffs and any member of the Settlement Class. See disc. supra at 2-4. All of them are eligible for medical monitoring on precisely the same terms. See Am. Settlement Agt. (Dkt. #92) at ¶ IV(B). Thus, the Settlement Agreement here is very different from what was at issue in Amchem and Dewey. Compare, e.g., id. (providing identical entitlement to seek medical monitoring relief for all class members), with Amchem, 521 U.S. at 603 ("the stipulation presents in detail an administrative mechanism and a schedule of payments to compensate class members who meet defined asbestos-exposure and medical requirements"), and Dewey, 681 F.3d at 187 (settlement "divide[d] a single class into two groups of plaintiffs that receive[d] different benefits").

IV. THE NCAA REMAINS WILLING TO ADDRESS ANY ADEQUACY CONCERNS

As noted at the October 23, 2014 hearing, Class Counsel have been retained by a number of participants in sports other than Contact Sports, and Class Counsel have recently sought leave to add several of those individuals as class representatives. See Oct. 23, 2014 Hr'g Tr., Ex. B hereto, at 90:23-91:8; Motion to Add Non-Contact Sports Plaintiffs and Class Reps. (Dkt. #96). For its part, the NCAA has no objection to the motion Plaintiffs filed on November 7, 2014, and we welcome input from these individuals. While the Parties and their counsel made a sincere effort during the course of the mediation to avoid differentiating between members of the Settlement Class, the NCAA is certainly willing (as noted at the October 23, 2014 hearing) to re-

[9] It is not at all clear that the plaintiff in Nichols would even have standing to raise the adequacy argument made in his August 22, 2014 submission, as he appears to have participated only in football, which is, of course, a Contact Sport. See Compl. (Nichols Dkt. #1) at ¶ 3.

engage in mediation with Plaintiffs' counsel and persons who participated in sports other than Contact Sports to ensure that the perspective of those persons is fully addressed. See id. at 91:12-14.

Dated: November 17, 2014

Respectfully submitted,

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IN RE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION STUDENT-ATHLETE CONCUSSION INJURY LITIGATION	)	**MDL No. 2492**
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EXHIBITS TO
SUPPLEMENTAL SUBMISSION OF THE NCAA
REGARDING ADEQUACY OF REPRESENTATION AND
THE SCOPE OF THE PROPOSED SETTLEMENT CLASS

A J. Hootman, et al., Epidemiology of Collegiate Injuries for 15 Sports, 42 J. Athletic Training 311(2007)

B Excerpted Transcript of October 23, 2014 Proceedings before the Honorable John Z. Lee

EXHIBIT A

Journal of Athletic Training 2007;42(2):311–319

www.journalofathletictraining.org

Epidemiology of Collegiate Injuries for 15 Sports: Summary and Recommendations for Injury Prevention Initiatives

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Objective: To summarize 16 years of National Collegiate Athletic Association (NCAA) injury surveillance data for 15 sports and to identify potential modifiable risk factors to target for injury prevention initiatives.

Background: In 1982, the NCAA began collecting standardized injury and exposure data for collegiate sports through its Injury Surveillance System (ISS). This special issue reviews 182 000 injuries and slightly more than 1 million exposure records captured over a 16-year time period (1988–1989 through 2003–2004). Game and practice injuries that required medical attention and resulted in at least 1 day of time loss were included. An exposure was defined as 1 athlete participating in 1 practice or game and is expressed as an athlete-exposure (A-E).

Main Results: Combining data for all sports, injury rates were statistically significantly higher in games (13.8 injuries per 1000 A-Es) than in practices (4.0 injuries per 1000 A-Es), and preseason practice injury rates (6.6 injuries per 1000 A-Es) were significantly higher than both in-season (2.3 injuries per 1000 A-Es) and postseason (1.4 injuries per 1000 A-Es) practice rates. No significant change in game or practice injury rates was noted over the 16 years. More than 50% of all injuries were to the lower extremity. Ankle ligament sprains were the most common injury over all sports, accounting for 15% of all reported injuries. Rates of concussions and anterior cruciate ligament injuries increased significantly (average annual increases of 7.0% and 1.3%, respectively) over the sample period. These trends may reflect improvements in identification of these injuries, especially for concussion, over time. Football had the highest injury rates for both practices (9.6 injuries per 1000 A-Es) and games (35.9 injuries per 1000 A-Es), whereas men's baseball had the lowest rate in practice (1.9 injuries per 1000 A-Es) and women's softball had the lowest rate in games (4.3 injuries per 1000 A-Es).

Recommendations: In general, participation in college athletics is safe, but these data indicate modifiable factors that, if addressed through injury prevention initiatives, may contribute to lower injury rates in collegiate sports.

Key Words: athletic injuries

Since 1988, the National Collegiate Athletic Association (NCAA) Injury Surveillance System (ISS) has collected injury and exposure data from 16 sport activities: men's baseball, men's basketball, women's basketball, women's field hockey, men's fall football, men's spring football, men's gymnastics, women's gymnastics, men's ice hockey, men's lacrosse, women's lacrosse, men's soccer, women's soccer, women's softball, women's volleyball, and men's wrestling. Data collection for a 17th sport, women's ice hockey, began in the 2000–2001 season. Men's gymnastics is not included due to small sample size, and fall and spring football are reported in the same article. A total of 182 000 injuries and slightly more than 1 million exposure records are contained in the sample from 1988–1989 through 2003–2004 described in this special issue. This article will summarize selected information from the 15 individual sport activities to provide an overview of general injury trends in college athletics. We also highlight injury rates for 3 specific conditions across all sports: ankle ligament sprains, anterior cruciate ligament (ACL) injuries, and concussions.

A reportable injury in the ISS had to meet all of the following criteria: (1) injury occurred as a result of participation in an organized intercollegiate practice or contest; (2) injury required medical attention by a team certified athletic trainer or physician; and (3) injury resulted in restriction of the student-athlete's participation or performance for one or more days beyond the day of injury. An exposure was defined as 1 athlete participating in 1 practice or game (athlete-exposure, A-E), and injury rates were expressed as the number of injuries per 1000 A-Es. More detail regarding the sports covered, sampling methods, and case definitions can be found in the "Introduction and Methods" article in this special issue.[1]

Over the 16-year sample period, injury trends may have been influenced by a variety of factors, including increased athletics participation, changes in NCAA rules and policies, and the continued evolution of the practice of sports medicine. Participation has increased among both sexes (80% increase in females and 20% increase in males) in all NCAA championship sports. The NCAA policy changes have been sport specific (eg, mandating eye protection in women's lacrosse, changing the weight classes in wrestling), division specific (eg, modifications to spring football practice in Divisions I and II), and across all divisions (eg, expanding the number of games in a season, increasing the length of practice seasons, and expansion of postseason tournament qualifying fields). Medical coverage for college athletics has improved, particularly with the creation of the 2000 National Athletic Trainers' Association (NATA) "Recommendations and guidelines for appropriate medical coverage in intercollegiate athletics."[2] The NATA

Table 1. Game and Practice Injury Rates, 15 Sports, National Collegiate Athletic Association, 1988–1989 through 2003–2004

	Total No. of Game Athlete-Exposures	Injuries, No.	Game Injury Rate per 1000 Athlete-Exposures	95% Confidence Interval	Total No. of Practice Athlete-Exposures	Injuries, No.	Practice Injury Rate per 1000 Athlete-Exposures	95% Confidence Interval
Division I								
Preseason	114 528	803	7.01	6.53, 7.50	4 903 695	35 710	7.28	7.21, 7.36
In season	1 963 708	31 883	16.24	16.06, 16.41	7 305 903	17 502	2.40	2.36, 2.43
Postseason	89 610	849	9.47	8.84, 10.11	390 538	622	1.59	1.47, 1.72
Total Division I	2 167 846	33 535	15.47	15.30, 15.63	12 600 136	53 834	4.27	4.24, 4.31
Division II								
Preseason	56 590	356	6.29	5.64, 6.94	2 290 173	14 696	6.42	6.31, 6.52
In season	1 017 991	13 855	13.61	13.38, 13.84	3 138 541	7013	2.23	2.18, 2.29
Postseason	45 747	388	8.48	7.64, 9.33	146 101	179	1.23	1.05, 1.40
Total Division II	1 120 328	14 599	13.03	12.82, 13.24	5 574 815	21 888	3.93	3.87, 3.98
Division III								
Preseason	115 725	562	4.86	4.45, 5.26	3 502 829	20 545	5.87	5.79, 5.95
In season	1 754 358	22 940	13.08	12.91, 13.25	5 472 374	12 625	2.31	2.27, 2.35
Postseason	85 831	680	7.92	7.33, 8.52	252 727	268	1.06	0.93, 1.19
Total Division III	1 955 914	24 182	12.36	12.21, 12.52	9 227 930	33 438	3.62	3.58, 3.66
All Divisions								
Preseason	286 843	1721	6.00	5.72, 6.28	10 696 697	70 951	6.63	6.58, 6.68
In season	4 736 057	68 678	14.50	14.39, 14.61	15 916 818	37 140	2.33	2.31, 2.36
Postseason	221 188	1917	8.67	8.28, 9.05	789 366	1069	1.35	1.27, 1.44
Total	5 244 088	72 316	13.79	13.69, 13.89	27 402 881	109 160	3.98	3.96, 4.04

*Wald χ^2 statistics from negative binomial model: game injury rates differed among divisions ($P < .01$) and within season ($P < .01$). Practice injury rates differed among divisions ($P < .01$) and within season ($P < .01$). Postseason sample sizes are much smaller (and have a higher variability) than preseason and in season sample sizes because only a small percentage of schools participated in the postseason tournaments in any sport and not all of those were a part of the Injury Surveillance System sample. Numbers do not always sum to totals because of missing division or season information. Spring football data are not included here.

reports that the number of certified athletic trainers working in the collegiate setting has increased 86% over the last 10 years (from 2654 in 1995 to 4947 in 2005; NATA, unpublished data, 2007). Finally, the field of sports medicine has advanced over this time, particularly with regard to evidence-based interventions (eg, bracing, physical conditioning programs) and medical awareness and diagnosis (eg, heightened awareness and ability to assess concussions).

In the following section, we first report selected results summarized across years and, in most cases, across sports and divisions. After each set of results, we provide commentary that addresses potential related prevention initiatives.

DATA SUMMARY AND COMMENTARY

Overall Game and Practice Injury Rates

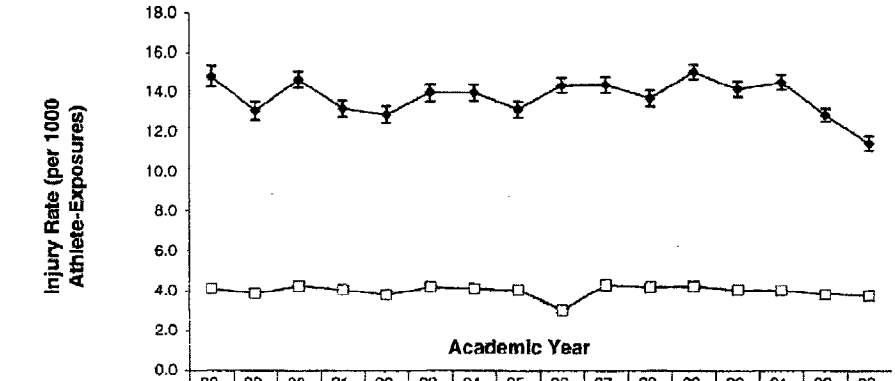
Table 1 shows overall game and practice injury rates by division and season, combined across 15 sports. The seasonal injury rates in both games and practices show similar patterns across divisions. For games, preseason competition accounted for the lowest injury rate in all divisions (6.0 injuries per 1000 A-Es, 95% confidence interval [CI] = 5.7, 6.3), whereas the in season was associated with the highest game injury rates (14.5 per 1000 A-Es, 95% CI = 14.4, 14.6). Rates in the postseason were significantly higher than those in the preseason (8.7 versus 6.0 per 1000 A-Es) but significantly lower than those in the regular season (14.5 per 1000 A-Es). Division I had the highest rates and Division III the lowest, regardless of season; however, not all differences were statistically significant.

For practices (Table 1), preseason practices accounted for the highest injury rate (6.6 per 1000 A-Es, 95% CI = 6.6, 6.7) across all divisions, whereas the postseason had the lowest practice injury rates (rates ranged from 1.1 per 1000 A-Es in Division III to 1.6 per 1000 A-Es in Division I). Within each Division and overall, preseason practice injury rates were 2.5 to 3 times higher than in-season practice rates and 4.6 to 5.5 times higher than postseason practice rates. As was the case with game rates, practice injury rates were highest in Division I and lowest in Division III, regardless of season.

Across all divisions and seasons, the rate of game injuries (13.8 per 1000 A-Es, 95% CI = 13.7, 13.9) was 3.5 times higher than the rate of practice injuries (4.0 per 1000 A-Es, 95% CI = 3.9, 4.0). These rates equate to 1 injury every 2 games and 1 injury every 5 practices for a team of 50 participants.

Significant variability exists across sports for the "intensity" of both game activities and, particularly, practice activities. Quantifying this variable is an important research opportunity that could aid future injury prevention research. In general, the higher "intensity" of game activity, in nonquantifiable terms, is most likely an important contributor to the higher injury rates in games compared with practices.

A variety of reasons may explain why injury rates are higher during the preseason than during other parts of the sport season. Some athletes may come to the preseason poorly conditioned, and, thus, the stress of the high-intensity, high-load preseason training may result in an excess of injuries. Also, any given preseason practice often lasts longer than an in-season or postseason practice. Because an ISS exposure has no time component, an individual is at a higher risk of injury



	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Game injury rate	14.8	13.1	14.6	13.2	12.9	14.0	14.0	13.1	14.3	14.4	13.7	15.0	14.2	14.5	12.9	11.4
Practice injury rate	4.1	3.9	4.2	4.0	3.8	4.2	4.1	4.0	3.0	4.3	4.2	4.2	4.0	4.0	3.8	3.7

Figure 1. Game and practice injury rates, 15 sports, National Collegiate Athletic Association, 1988–1989 through 2003–2004. Game time trend $P = .78$. Average annual change = −0.3% (95% confidence interval = −2.5, 1.9). Practice time trend $P = .70$. Average annual change = −0.2% (95% confidence interval = −1.4, 0.9).

in a longer practice because of the extended exposure to athletic activity. Future authors who use a finer level of exposure measurement, such as player-minutes, may be better able to discriminate among these possible seasonal differences in injury rates. However, it should be noted that this more detailed exposure measurement (player-minutes) may be extremely difficult or impractical to obtain given the time and effort it would take to gather these data. Preseason practice also often includes multiple practices on the same day; this scenario may limit recovery for subsequent activities and pose a higher injury risk to players. Preseason practices also may have more less-skilled or "walk-on" persons trying out for the sport; such individuals may be more susceptible to injury. Preseason is also a time when all players may be competing for starting positions, thus creating a highly competitive atmosphere, which may increase injury rates. Many of the listed seasonal factors may be modifiable, so the potential is great for developing injury prevention interventions to address the high rates of preseason injuries. Preseason competition injury rates were lower than in-season or postseason competition rates. This finding is likely due to the fact that preseason competitions in most sports may be more like scrimmages or practice games. Coaches may be using players in different combinations than during the regular season, and the intensity of play may be somewhat mitigated compared with regular-season competitions.

Injury prevention strategies, such as phased-in, multiple-day practices; modifying practice times to accommodate environmental conditions; mandating appropriate recovery time; and preparticipation medical examinations, should be developed and implemented to reduce preseason injury rates. In 2003, the NCAA created legislation to address heat illness and general injury in preseason football practices. This policy mandated a 5-day acclimatization period and other practice time limitations during the preseason training session.[3] Initial feedback from both coaches and players was generally favorable, although it is too early to quantify the effect on preseason heat or general injury rates. The American College of Sports Medicine has followed up on this NCAA policy with a 2004 expert panel roundtable, "Youth football: heat stress and injury risk,"[4] expanding the conversation to youth sports and setting the stage for discussions across multiple sports. Minimizing preseason injury rates in all sports through basic concepts of recovery and hydration, as well as through more innovative ideas, represents an important area in which certified athletic trainers can make a difference.

Time Trends in Game and Practice Injury Rates

Figure 1 shows time trends in game and practice injury rates from 1988–1989 to 2003–2004 for all the 15 sports combined. Time trends show that game injury rates varied somewhat from 1988–1989 through 1995–1996 and leveled out for the remaining years, while practice injury rates demonstrated a more stable course. No statistically significant increases or decreases in game ($P = .78$) or practice ($P = .70$) injury rates occurred over the 16-year sample period.

Although not statistically significant, visual trends indicate decreasing game injury rates over the 16 years, particularly in the last 2 academic years. This finding may be related to the modifications associated with NCAA policy and general sports medicine practice discussed in the "Introduction and Methods" article.[1] In particular, many of the specific NCAA rules modifications made over this time period were specifically focused on game situations (eg, clipping in football, hitting from behind in ice hockey). If such policies achieved some level of success in the applicable sport, the resulting injury trends may eventually be reflected in these data. It also is possible that the steady increase in the number of schools participating in the ISS over the sample period has contributed to a stabilization of game injury rates by effectively increasing the sample size over time.

Injury Mechanism

Figure 2 shows practice and game injury mechanisms for the 15 sports combined across years. For both practices and games, player contact accounted for the majority of injuries (58.0% in games, 41.6% in practices). In practices, noncontact injury mechanisms account for 36.8% of all injuries, compared with only 17.7% in games.

Player contact is a normal part of some sports, such as foot-

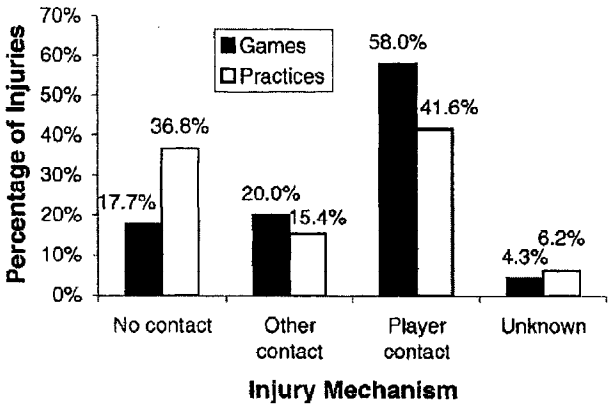


Figure 2. Distribution (percentage) of injuries by injury mechanism for practices and games, 15 sports, National Collegiate Athletic Association, 1988–1989 through 2003–2004.

ball, men's ice hockey, men's lacrosse, and wrestling. However, as noted earlier, although the percentages of player contact injuries may be somewhat similar between practices and games, the overall practice injury rate in these contact sports may be significantly lower because of the judicious use of player contact in practice. Sport rules and policies that promote safer forms of player contact can be instituted and enforced. For example, the no-spearing and no-clipping rules were instituted in an effort to reduce contact-related injury rates (specifically head and neck injuries and knee injuries) in football. The no-spearing rule was thought to be such an important part of the game that the *2006 NCAA Football Division I Manual*[3] listed it in the opening "Points of Emphasis" section, as well as under the code of ethics for coaches. Protective equipment, such as face guards in men's ice hockey and protective devices for injured body parts, also can be effective in minimizing player and apparatus contact injuries. Athletic trainers continue to play a leading role in creating innovative protection for susceptible body parts that allow players to participate with a reduced risk of injury from a direct blow.

Sports that limit or restrict player contact, such as soccer, basketball, and women's ice hockey, still have a majority of their game injuries associated with player contact. A review of playing rules in these sports to determine the effectiveness of the noncontact emphasis seems warranted.

The high percentage of practice noncontact injuries primarily reflects muscle strains and joint sprains that, for the most part, cannot be effectively addressed by formal NCAA legislation. Most of these noncontact practice injuries would best be addressed by identification and modification of risk factors. Just by being present and observing practices, athletic trainers may be able to identify and remedy potential injury-causing situations (eg, wet floors, environmental conditions). Future researchers should investigate the circumstances and characteristics of these noncontact practice injuries in more detail to identify possible injury prevention initiatives.

Distribution of Injuries by Body Part

Figure 3 shows the distribution of injuries by body part for practice and games, for 15 sports, combined across years. The distribution of injuries by body part was similar for both practices and games. More than 50% of all reported injuries were to the lower extremity in both practices and games, with knee and ankle injuries accounting for most of the lower extremity injuries (data not shown). Injuries to the upper extremity accounted for 18.3% and 21.4% of game and practice injuries, respectively.

In terms of total burden in the athletic population, the preponderance of injuries to the lower extremity justifies particular emphasis in athletic training education and prevention efforts in this area. Although studies targeted to minimize injury to particular joints (ankles) or structures (ACLs) have merit, more attention should be directed to injury prevention research that is applicable to all types of lower extremity injuries. Identifying modifiable risk factors that are common to the majority of lower extremity injuries and targeting injury prevention interventions to the populations that have the greatest need (eg, highest incidence or prevalence, those who are disproportionately affected) should result in noticeable reductions in injury rates and, possibly, reductions in related medical costs over time. This approach also may be scientifically stronger, because it is extremely difficult and expensive (since very large sample sizes and long follow-up times are needed) to conduct randomized controlled trials of injury prevention interventions

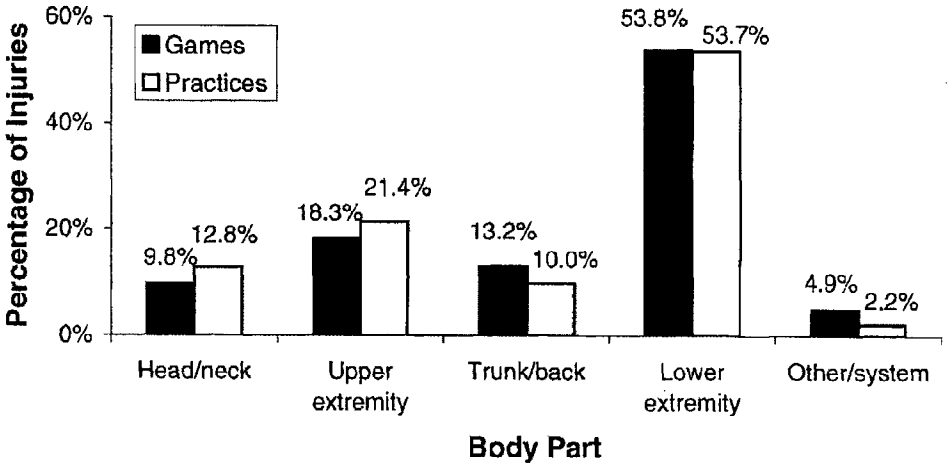


Figure 3. Distribution (percentages) of injuries by body part for games and practices for 15 sports, National Collegiate Athletic Association, 1988–1989 through 2003–2004.

for conditions that are relatively rare (eg, noncontact ACL injuries). For example, much of the research on neuromuscular exercise training programs for ACL injury prevention may have applicability to other conditions, such as ankle ligament sprains,[5,6] hamstring injuries,[7] and lower extremity injuries in general.[8–10] There is a critical need to train researchers in the appropriate methods and to increase funding for injury prevention research in the United States. The NCAA ISS is an ongoing, flexible, and standardized injury surveillance tool that can be a valuable resource for such studies.

Rates of Select Injuries (Ankle Ligament Sprains, Anterior Cruciate Ligament Injuries, and Concussions) by Sport

Table 2 shows the frequency, distribution, and rates of select injuries (ankle ligament sprains, ACL injuries, and concussions), broken out by the 16 sports, combined across years. More than 27 000 ankle ligament sprains were reported over the 16 academic years, yielding an average of approximately 1700 per year. Assuming the sample represents approximately 15% of the total population of NCAA institutions, this equates to an annual average of more than 11 000 ankle sprains in these 15 activities. These injuries accounted for approximately one quarter of all injuries in men's and women's basketball and women's volleyball. However, spring football (1.34 per 1000 A-Es) and men's basketball (1.30 per 1000 A-Es) had the highest rates of ankle ligament sprains.

Approximately 5000 ACL injuries were reported over the 16 years, an average of 313 per year in this sample. Assuming the sample represents approximately 15% of the total population, this equates to an annual average of more than 2000 ACL injuries in these 15 activities. Football had the highest number of reported ACL knee injuries (2159 in fall and 379 in spring, 53% of all recorded ACL injuries), but women's gymnastics had the highest rate (0.33 per 1000 A-Es), equal to the rate for spring football (0.33 per 1000 A-Es). Three of the 4 sports with the highest rates were women's sports (gymnastics, basketball, and soccer), and, along with spring football, all had significantly higher ACL injury rates than any other sport.

More than 9000 concussions were reported over the 16 years, an average of 563 per year in this sample. Assuming the sample represents approximately 15% of the total population, this equates to an annual average of about 3753 concussions in these 15 activities. Football had the highest number of reported concussions (fall and spring combined, n = 5016, 55% of all concussions recorded), but women's ice hockey had the highest rate (0.91 injuries per 1000 A-Es, 95% CI = 0.71, 1.11; significantly higher than for all other sports). However, we caution that the ISS has collected data from women's ice hockey for only 4 years, and therefore data must interpreted with caution. Women's soccer, traditionally a noncontact sport, also had a relatively high rate of concussions (0.41 per 1000 A-Es, 95% CI = 0.38, 0.44).

Time Trends in Injury Rates for Select Injuries

Figure 4 shows time trends in injury rates for select conditions (ankle ligament sprains, ACL knee injuries, and concussions), combined across the 15 sports and combined across years. Time trends in the rates of reported ankle ligament sprains across sports appear relatively stable, with a nonsignificant decrease (−0.1%, $P = .68$) noted over 16 years. Rates of ACL injuries and concussions both demonstrated significant increases (ACL: 1.3% average annual increase, $P = .02$; concussion: 7.0% average annual increase, $P < .01$) over time. The rates of concussions doubled from 0.17 per 1000 A-Es in 1988–1989 to 0.34 per 1000 A-Es in 2003–2004. The observed upward trend in the concussion rate undoubtedly reflects improvements in the detection and management of concussion over the 16-year study period (especially in football) but may also represent some true increases in concussion rates over time.

Ligamentous injuries to the ankle are the most common injury occurring, regardless of sport or exposure type (game or practice), a fact supported in the literature.[11] In this sample, ankle ligament injuries represented 14.8% of all reported injuries (range = 3% [women's ice hockey] to 26% [men's basketball]). Marchi et al[12] reported in 1999 that 23% of ankle sprains in their study of moderate to severe sports injuries among children aged 6 to 15 years resulted in permanent sequelae over 12 years of follow-up. Although only 1 in 5 ISS ankle ligament injuries resulted in 10+ days of time loss (a marker of injury severity), if even a small proportion of these injuries result in long-term morbidity or disability, then they represent a large potential burden in the population.

Effective interventions exist that can reduce the incidence of ankle injury without critically impairing performance.[5,13,14] Prophylactic bracing or taping and neuromuscular/balance exercise programs can reduce the rate of lower extremity injuries by as much as 50%.[5] These interventions are particularly efficacious among athletes with a prior history of ankle injury. Specifically looking at the sport of volleyball, ankle sprain prevention programs have been proven efficacious and cost effective.[6,15,16] Because the majority of lower extremity sports injuries occur to the ankle, it is reasonable to think that these interventions, if broadly implemented, could reduce the incidence of ankle injury and/or reinjury. Despite this likelihood, no existing "best practice" or clinical practice guidelines direct the broad uptake of these interventions in the sports medicine community.

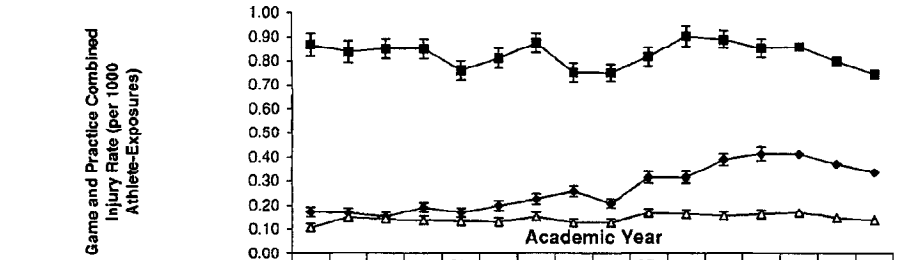
Overall, ACL injuries, regardless of mechanism, only accounted for approximately 3% of all injuries (range: 0.7% [women's ice hockey, men's baseball] to 5% [women's gymnastics, women's basketball]), but 88% of these injuries resulted in 10+ days of time loss. The rate of ACL injury increased 1.3% per year on average over the sample period. Evaluation of this injury trend over time also must include consideration of the significant changes in conditioning, bracing, and medical technology and diagnosis discussed earlier. The intense interest focused on ACL injuries—in particular, the noncontact ACL sex differences reported previously,[17,18] which continue to be substantiated in this sample period—may have contributed to increased detection of these injuries. In conjunction with the increased clinical awareness of these injuries is the increased use and sensitivity of adjunct diagnostic tools such as arthrograms and magnetic resonance imaging. Although serious (as measured by time loss, pain, disability, and costs) in terms of both frequency and rates, ACL injuries are not "epidemic." In fact, using the standard of <.05 as rare, the actual probability of ACL injury would be considered a rare event. For example, in 2003 Uhorchak et al[19] reported the probability of noncontact ACL injury during club and varsity sports at the US Military Academy to be 1 in 25 782 hours of exposure (probability, <.0001). The ACL injury rates in these NCAA data range from 0.02 to 0.33 per 1000 A-Es, depending upon the sport, which also indicates that ACL in-

Table 2. Frequency, Distribution, and Rates of Select Injuries (Ankle Ligament Sprains, Anterior Cruciate Ligament Injuries, and Concussions) for Games and Practices Combined for 15 Sports, 1988–1989 to 2003–2004

Injuries	Frequency	Percentage of All Injuries	Injury Rate per 1000 Athlete-Exposures	95% Confidence Interval
Ankle ligament sprains				
Men's baseball	663	7.9	0.23	0.21, 0.25
Men's basketball	3205	26.6	1.30	1.26, 1.35
Women's basketball	2446	24.0	1.15	1.10, 1.20
Women's field hockey	327	10.0	0.46	0.41, 0.51
Men's football	9929	13.6	0.83	0.81, 0.84
Women's gymnastics	423	15.4	1.05	0.95, 1.15
Men's ice hockey	296	4.5	0.23	0.20, 0.26
Women's ice hockey*	12	2.8	0.14	0.06, 0.22
Men's lacrosse	698	14.4	0.66	0.61, 0.71
Women's lacrosse	602	17.7	0.70	0.65, 0.76
Men's soccer	2231	17.2	1.24	1.19, 1.29
Women's soccer	1876	16.7	1.30	1.24, 1.36
Women's softball	526	9.9	0.32	0.29, 0.35
Women's volleyball	1649	23.8	1.01	0.96, 1.06
Men's wrestling	715	7.4	0.56	0.52, 0.60
Men's spring football	1519	13.9	1.34	1.27, 1.40
Total ankle ligament sprains	27 117	14.9	0.83	0.82, 0.84
Anterior cruciate ligament injuries				
Men's baseball	56	0.7	0.02	0.01, 0.02
Men's basketball	167	1.4	0.07	0.06, 0.08
Women's basketball	498	4.9	0.23	0.21, 0.25
Women's field hockey	53	1.6	0.07	0.05, 0.09
Men's football	2159	3.0	0.18	0.17, 0.19
Women's gymnastics	134	4.9	0.33	0.28, 0.39
Men's ice hockey	78	1.2	0.06	0.05, 0.07
Women's ice hockey*	3	0.7	0.03	0.00, 0.07
Men's lacrosse	131	2.7	0.12	0.10, 0.15
Women's lacrosse	145	4.3	0.17	0.14, 0.20
Men's soccer	168	1.3	0.09	0.08, 0.11
Women's soccer	411	3.7	0.28	0.26, 0.31
Women's softball	129	2.4	0.08	0.06, 0.09
Women's volleyball	142	2.0	0.09	0.07, 0.10
Men's wrestling	147	1.5	0.11	0.10, 0.13
Men's spring football	379	3.5	0.33	0.30, 0.37
Total anterior cruciate ligament injuries	4800	2.6	0.15	0.14, 0.15
Concussions				
Men's baseball	210	2.5	0.07	0.06, 0.08
Men's basketball	387	3.2	0.16	0.14, 0.17
Women's basketball	475	4.7	0.22	0.20, 0.24
Women's field hockey	129	3.9	0.18	0.15, 0.21
Men's football	4404	6.0	0.37	0.36, 0.38
Women's gymnastics	64	2.3	0.16	0.12, 0.20
Men's ice hockey	527	7.9	0.41	0.37, 0.44
Women's ice hockey*	79	18.3	0.91	0.71, 1.11
Men's lacrosse	271	5.6	0.26	0.23, 0.29
Women's lacrosse	213	6.3	0.25	0.22, 0.28
Men's soccer	500	3.9	0.28	0.25, 0.30
Women's soccer	593	5.3	0.41	0.38, 0.44
Women's softball	228	4.3	0.14	0.12, 0.16
Women's volleyball	141	2.0	0.09	0.07, 0.10
Men's wrestling	317	3.3	0.25	0.22, 0.27
Men's spring football	612	5.6	0.54	0.50, 0.58
Total concussions	9150	5.0	0.28	0.27, 0.28

*Data collection for women's ice hockey began in 2000–2001.

juries are relatively rare. Contrast this with the ankle ligament sprain rates discussed above (range: 0.14 to 1.34 per 1000 A-Es); all but 4 sports (men's ice hockey, women's ice hockey, men's baseball, and women's softball) had ankle ligament sprain rates that were higher than that associated with the sports with the highest ACL injury rate (women's gymnastics and men's spring football). One interpretation of these data, as noted previously, is that injury prevention research should focus more on lower extremity injuries in general and not just on injuries to specific anatomical structures. This approach



	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Concussions	0.17	0.17	0.15	0.19	0.17	0.20	0.23	0.26	0.21	0.32	0.32	0.39	0.41	0.41	0.37	0.34
Ankle ligament sprains	0.87	0.84	0.85	0.85	0.76	0.81	0.87	0.75	0.75	0.82	0.90	0.89	0.85	0.86	0.80	0.75
Anterior cruciate ligament injuries	0.11	0.15	0.14	0.14	0.13	0.13	0.15	0.13	0.13	0.17	0.16	0.16	0.16	0.17	0.15	0.14

Figure 4. Injury rates for select conditions (concussions, ankle ligament sprains, and anterior cruciate ligament injuries) for games and practices combined for 15 sports, National Collegiate Athletic Association, 1988–1989 through 2003–2004. Ankle ligament sprains time trend $P = .68$. Average annual change = −0.1% (95% confidence interval = −0.8, 0.5). Anterior cruciate ligament (ACL) injury time trend $P = .02$. Average annual change = 1.3% (95% confidence interval = 0.2, 2.4). Concussion time trend $P < .01$. Average annual change = 7.0% (95% confidence interval = 5.4, 8.7).

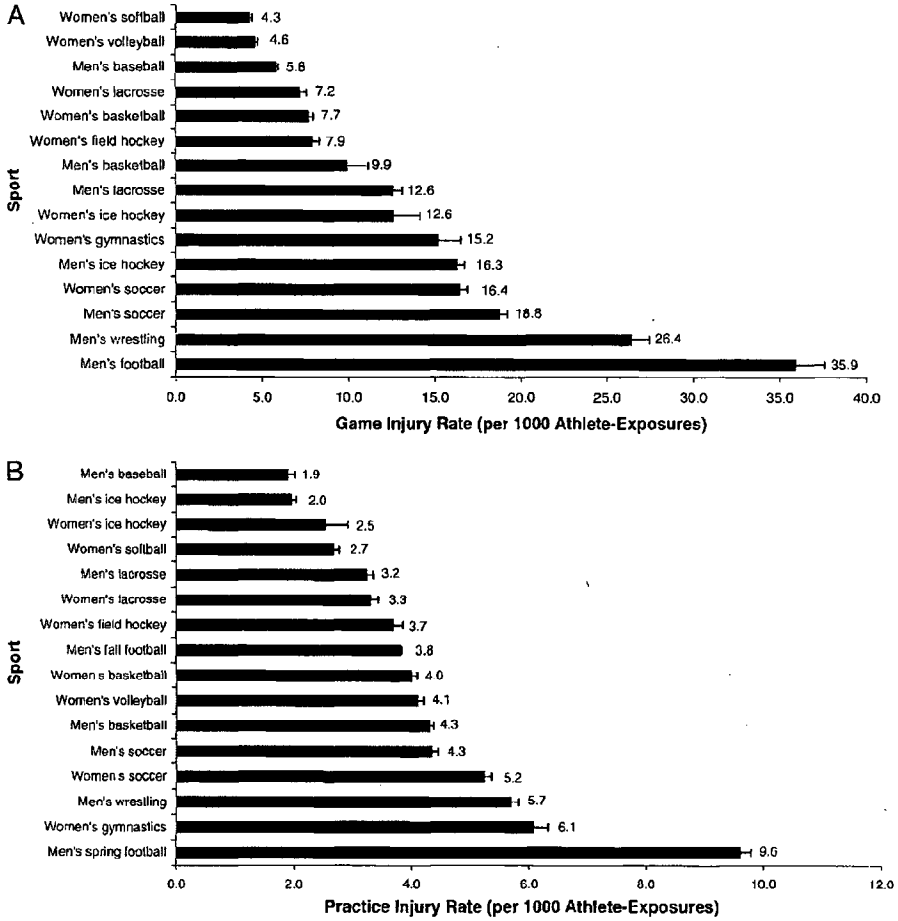


Figure 5. Overall (A) game and (B) practice injury rates for 15 sports, National Collegiate Athletic Association, 1988–1989 to 2003–2004. Although data for 15 total sports are presented, fall and spring football are reported separately for practices; because no "official games" are played during spring football, only fall football is listed for games.

would require, however, that we establish risk factors that are common to all (or most) lower extremity injuries and develop interventions to address these factors.

Concussions represented 5% (women's volleyball) to 18% (women's ice hockey) of reported injuries, 14% of which restricted participation for 10 days or more (range: 2%). The rate of concussion increased significantly by 7% on average over the 16 years covered in this report, despite sport-specific efforts (eg, in ice hockey and men's lacrosse) to address the rising risk. This trend may reflect an actual increase in the numbers of concussions per unit of exposure, but it is also attributable, at least in part, to improvements in the identification of concussion (better awareness and diagnosis) in recent years. Even mild traumatic brain injuries may have long-term effects; therefore, it is critically important to identify potential prevention interventions for this injury. Promising areas of research include baseline neuropsychological testing for identification and helmet and mouthguard design for prevention. Collins et al[20] recently reported that newer models of football helmets (eg, the Riddell Revolution, Elyria, OH) may protect players from concussion. More research is needed in these areas, as well as in the area of injury biomechanics in ice hockey and lacrosse, to maximize the potential beneficial effect of concussion identification and prevention in all sports. Sex differences in the susceptibility to concussions in similar sports (such as soccer and basketball in this issue) may be another area for future research and prevention.

Game and Practice Injury Rates, by Sport

Figure 5 shows game and practice injury rates for 15 sports (fall and spring football are listed separately for practices; only fall football is listed for games) combined across years.

For games, football had the highest rate of injury in games (35.9 per 1000 A-Es), followed by wrestling (26.4 per 1000 A-Es). Baseball had the lowest game injury rate (5.8 per 1000 A-Es) among men's sports. Among women's sports, soccer (16.4 per 1000 A-Es) had the highest game injury rate (fourth highest overall) and women's softball the lowest (4.3 per 1000 A-Es).

For practices, spring football had the highest rate of practice injuries (9.6 per 1000 A-Es), followed by women's gymnastics (6.1 per 1000 A-Es), wrestling (5.7 per 1000 A-Es), and women's soccer (5.2 per 1000 A-Es). The sports with the lowest rates of practice injuries were men's ice hockey (2.0 per 1000 A-Es), women's ice hockey (2.5 per 1000 A-Es), and men's baseball (1.9 per 1000 A-Es).

In sports traditionally associated with player contact, such as football, men's ice hockey, men's lacrosse, and even wrestling, the dramatic difference in the practice injury rate versus the game injury rate may be a reflection of curtailed contact in practice activities. In particular, men's ice hockey has the same sharp skates, wooden sticks, and high-speed pucks flying around during both practices and games; however, the player contact is reduced, contributing to a practice injury rate (2.0 injuries per 1000 A-Es) more than 8 times lower than the game injury rate (16.3 injuries per 1000 A-Es). The sports that are not traditionally associated with significant player contact do not have such dramatic differences between practice and game injury rates (eg, women's volleyball, baseball, and softball). The limiting of player contact with teammates in practice may be an important modifiable factor that, along with the concept of effectively quantifying the intensity variables, as noted above, warrants more research. Two typically noncontact sports, women's soccer and women's gymnastics, had injury rates in the range reported for contact sports such as wrestling (practices) and men's ice hockey (games). These data indicate that identifying risk factors for injury and implementing injury prevention interventions should be a high priority in these activities.

The ISS data also provide a foundation for informed institutional decision making with regard to staffing activities. Although individual school injury rates are the optimal resource, these national data can allow a sports medicine professional to make decisions regarding where to place limited staff during simultaneous events based on the risk of injury, a basic foundation of the NATA guidelines discussed previously.[2] By virtue of its limited and defined practice period, spring football was the only "nontraditional season" activity monitored in this sample. However, the finding of a spring practice injury rate that is almost 3 times higher than the fall football practice injury rate raises concern about why student-athletes appear to be at significantly higher risk for injury in "nontraditional" activities compared with in-season activities. Future research and prevention efforts should be directed to out-of-season activities in all sports.

CONCLUSIONS

The lower extremity accounted for more than one half of all reported injuries in this sample, justifying particular emphasis on this region in athletic training education, clinical practice, and prevention efforts. Ankle ligament sprains seem to be a common problem in all levels of college athletics, as they make up 14.8% of all injuries reported in the ISS. Concussions and ACL injuries were other high-profile injuries that occurred with less frequency but often carry more significant health consequences. The rates of these latter 2 injuries, particularly concussions, have significantly increased over the sample period. This increase may represent a combination of an actual increase in occurrences as well as a greater awareness of the symptoms and consequences associated with the injury (eg, detection bias). Prevention efforts may be more effective in terms of both numbers affected and costs if they are directed toward a larger number of general lower extremity injuries and not to specific low-incidence injuries, such as noncontact ACL injuries.

With the majority of game and practice injuries associated with player contact, prevention initiatives should focus on instituting and enforcing existing playing rules and policies developed for competitions. This is most likely the role of governing bodies such as the NCAA. Injury prevention issues related to practices, on the other hand, may be better monitored at the institutional level. The model recently adopted for preseason football practices, which involves gradual integration of full-contact practices with appropriate recovery time between sessions, is an example of a policy that may benefit other sports.[3,21] Out-of-season and "nontraditional" season practice activities may be another area for intervention if the pattern of high spring (out-of-season) football injury rates, relative to the rates of fall practice, is similar in other sports.

In conclusion, these data indicate that the risk and rate of injury in intercollegiate athletics are relatively low (1 injury every 2 games and 1 injury every 5 practices for a team of 50 participants) and that most reported injuries do not result in substantial time loss (ie, they are minor-severity to moder-

ate-severity injuries). Most importantly, these data highlight potentially modifiable factors that, if addressed through injury prevention initiatives, may be able to reduce injury rates in collegiate sports even further. Using the 4-step injury prevention model proposed by van Mechelen et al,[22] in which we (1) identify the problem, (2) establish etiology and mechanisms, (3) develop, evaluate, and implement interventions, and (4) reevaluate the effect via continued surveillance, the ISS is perfectly positioned to assist with the first and last steps of this process. The ISS can also be used to (1) guide informed decision making regarding issues such as appropriate medical care staffing and sport-specific safety, (2) identify naturally occurring injury rate peaks and valleys, (3) identify new emerging issues (eg, methicillin-resistant *Staphylococcus aureus* infections), and (4) evaluate "before" and "after" effectiveness of safety policy implementation. Because few evidence-based injury prevention programs currently exist specific to collegiate sports, the most critical need is to establish causes and mechanisms for the most burdensome injuries and to develop, evaluate, and implement injury prevention interventions over the next decade.

DISCLAIMER

The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention or the National Collegiate Athletic Association.

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Jennifer M. Hootman, PhD, ATC, FACSM; Randall Dick, MA, FACSM; and Julie Agel, MA, ATC, contributed to conception and design; analysis and interpretation of the data; and drafting, critical revision, and final approval of the article.

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EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE: NATIONAL COLLEGIATE ATHLETIC ASSOCIATION STUDENT-ATHLETE CONCUSSION INJURY LITIGATION,	) Docket No. 13 C 9116)) Chicago, Illinois) October 23, 2014) 10:00 o'clock a.m.

TRANSCRIPT OF PROCEEDINGS - MOTION
BEFORE THE HONORABLE JOHN Z. LEE

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THE CLERK: 13 CV 9116, NCAA Student Athlete Concussion Injury Litigation, for motion hearing.

MR. BERMAN: Good morning, your Honor. Steve Berman on behalf of the plaintiffs.

MR. MESTER: Mark Mester and Johanna Spellman on behalf of the NCAA.

MR. EDELSON: Good morning, your Honor. Jay Edelson on behalf of the proposed objectors.

MR. BARBAKOFF: Good morning, your Honor. Gregg Barbakoff on behalf of plaintiffs, from Siprut PC.

THE COURT: Good morning, counsel. We have people on the phone. Will the people on the phone introduce themselves for the record please.

MR. SIPRUT: Good morning, your Honor. This is Joe Siprut for plaintiffs. And thank you for allowing some of us to appear telephonically this morning.

MR. BERG: Marc Berg on behalf of Paul Morgan and others from the district of Minnesota, calling from Minneapolis. Thank you, your Honor.

MR. GIBBS: Bill Gibbs on behalf of the Wolf plaintiffs.

THE COURT: Anyone else on the phone?

MR. JONES: -- from Siprut PC also on behalf of Mr. Arrington.

THE COURT: Who is that please? Can you repeat your

name?

MR. JONES: Greg Jones also from Siprut PC on behalf of the plaintiffs.

MR. MILLER: Vess Miller from Cohen and Malad on behalf of the Durocher plaintiffs.

MR. STUCKEY: Shawn Stuckey from Zelle Hofmann on behalf of the plaintiffs.

MR. ELLIS: Ryan Ellis, Lanier Law, here for the plaintiffs.

MS. PAVA: Mindy Pava, Hausfeld, on behalf of the plaintiffs.

THE COURT: Anyone else? All right. Very well.

I understand that there is a PowerPoint presentation at some point today that the attorneys want to present. But I have had a chance to now review the rather voluminous submissions by the parties, the settling parties, the NCAA, as well as Mr. Edelson on behalf of the Nichols, his client the Nichols, and the putative class.

The purpose of today's hearing is, I had some questions regarding the scope of the settlement, some of the terms of the settlement. And I want to discuss those concerns with counsel today. With regard to the -- so that was kind of the main thing on my agenda as I continue to evaluate the preliminary approval motion that is currently pending before the Court.

I understand that plaintiffs' counsel, Hagens Berman, has a presentation they would like to make at some point. Is that correct?

MR. BERMAN: It's -- no, up to you, your Honor. You're directing.

THE COURT: What is the presentation intended to address?

MR. BERMAN: It's intended to address the objections. I can go through the following things. One, to review the terms of settlement again, in case you have questions. You probably studied it and you might not. To address the objections, to talk about Rule 23 and to walk you through the notice plan and the schedule.

THE COURT: Okay. I think I have covered a lot of those in my questions. So let's do this: I will hear from counsel in response to the questions that I have. And if, Mr. Berman, you think that parts of your presentation might provide some additional illumination on those points you are more than welcome to use it. But these are pretty focused.

So first of all, I wanted to talk about the concerns I have regarding the scope of the proposed putative class, both in terms of scope of activity as well as temporal scope. So first, with regard to the scope of activity or the sports, as counsel knows, Rule 23(a) requires, among other things, typicality and that the named class representatives adequately

represent the interests of the putative class members.

The class definition as it currently is proposed includes current and former student athletes who played an NCAA-sanctioned sport at an NCAA member institution. It does not provide any limitation on what type of sport, so long as it is NCAA-affiliated or sanctioned. And it certainly doesn't provide any limitation as to scope in time. And both those things raise different types of concerns with regard to preliminary approval of the settlement.

So first of all, with regard to the type of sport, the proposed class definition does not differentiate between those student athletes who played what is defined to be contact sports; that is, football, lacrosse, wrestling, ice hockey, soccer and basketball, and those who played non-contact sports such as baseball, water polo, skiing, as well as the numerous other NCAA-sanctioned sports that are in various schools.

This distinction does manifest itself in parts of the proposed settlement agreement. For example, the return-to-play guidelines as well as some of the provisions that provide for additional medical staff and training provide additional protections for contact sports that is not provided in non-contact sports.

Now, perhaps in some respects that might make a lot of sense. Perhaps if you play -- if you have a student athlete in a rifling event, for example, which I understand is an NCAA-

sanctioned sport in some instances, perhaps you don't necessarily have a lot of risks of concussions. But perhaps you do. Certainly one can envision a scenario where someone playing baseball, water polo, skiing, gymnastics, might have concussion concerns.

Now, I am not saying that they will or not. But what I am saying is that the Court is cognizant of the fact that those non-contact sports are not represented by any class representative in any of the classes. In fact, all the named representatives have played a contact sport.

And so whether or not those are legitimate concerns at this point I am not sure whether or not the Court, or frankly anyone else here, knows, given the fact that we do not have a class representative in any of the class actions that has played a non-contact sport, as that term is defined in the settlement agreement.

The differences also manifest themselves in some of the assumptions that is used by Analysis Group and Bruce Deal, when he concludes that the amount of the settlement is adequate for the medical monitoring program. For example, one of the assumptions that he uses -- or not assumptions -- figures that he uses to calculate the anticipated number of people that would participate in the medical monitoring program is based upon the number of concussions reported per every thousand student athletes who played a contact sport.

There is no discussion of the rate of concussions in any other sport. If there are such data, and I don't know whether or not there is and that's one of the questions I have, presumably that number would increase the participation rate that forms the basis of Analysis Group's conclusion that the funds that are currently allocated for the medical monitoring project are sufficient.

So those are some ways in which the distinction between contact sports and non-contact sports again manifests itself throughout the settlement agreement and the procedure that the parties contemplate. And I also note that according to Bruce Deal's estimates, approximately 2.4 million of the 4.2 million putative class members were athletes who played non-contact sports.

So you have more than 50 percent the class, of the putative class, who, No. 1, did not play contact sports; No. 2, are not represented by any named class member in any of the class actions that are currently before the Court.

Given that, my question to counsel -- and we will start with Mr. Berman, and then I will hear from the NCAA and anyone else, any other counsel, that would like to speak up -- can the current class representatives adequately represent the interests of those who played non-contact sports when it comes to the terms that are set forth in this settlement?

Mr. Berman?

MR. BERMAN: Thank you, your Honor.

With respect to why we included the non-contact sports, there are probably instances that we don't know about where a non-contact person has been concussed. The NCAA data that we had as far as --

(Brief interruption.)

MR. BERMAN: Sorry.

The data as far as I know that the NCAA gave us in discovery that tracks concussions only tracks the contact sports. But we are aware of examples, for example a baseball player. I'm assuming this because Major League baseball has focused on the fact that catchers are getting concussed when there is collisions at home plate.

So even though we don't have the data, we figure that there are probably some athletes out there who have been concussed in baseball. I think there are -- in the settlement negotiations the NCAA give us some other examples of sports that we wouldn't think, like a steeplechase runner falling off the steeple and hitting his head. So there is isolated examples out there.

So we figured that we wanted to offer the benefits of medical monitoring as broadly as possible so that health issues could be addressed. I think the Sullivan case from the Third Circuit, so called De Beers case, talks about the fact that the settlement can be broader than some of the underlying aspects

of the litigation. So we felt that we were fairly safe with respect to covering a broader group, and it was the right thing to do.

We don't think as a practical matter that covering that many athletes will dilute the medical monitoring fund because we just don't think that there are that many. There has to be two things. There has to be a concussion, and there has to be long-standing injury, which we know is not that frequent. So it's probably not a large number of people.

As to your second question, why we did not implement the return-to-practice or return-to-play guidelines more broadly than contact sports, the answer was, that was a hotly contested issue because what we're imposing on particularly Division Two and Three schools has financial consequences and has significant financial consequences.

So, for example, let's take baseline testing. Although Mr. Edelson belittles that, the scientific evidence from the only scientist in this case, Dr. Cantu, says that that's probably the most critical thing. If you don't have a baseline for an athlete, then it's much harder to tell what happened to them. In fact, baseline testing -- my daughter is getting baseline tested at Youth 13 soccer. It's like a fundamental part of concussion management.

But it has an expense. So we are imposing that expense on Division Two and Three schools, not happily from

what I can tell. We're also imposing the expense of having qualified medical personnel at all games. That's a lot of games when you think of all the different contact sports. That's expensive. And the Division Two and Three schools also have to have available during practices qualified medical personnel.

So if we went further, if we went to golf and we went to, you know, swimming, we probably -- first of all we'd never have had a settlement package. But we wouldn't really be doing good. We would be doing more harm, because to get the schools to agree to what we did, they have to see that it was necessary. And going beyond that I don't think is necessary.

THE COURT: Mr. Berman, I guess there is two questions I have with regard to that, follow-up questions. One is that if the issue was hotly contested, and I have no reason to take issue with what you tell me, the concern I have is then shouldn't there be someone who played a non-contact sport be part of this lawsuit? Because the current class representatives who play contact sports, it's completely within their -- it's to their benefit to agree that those additional procedures be applied to contact sports, because frankly they may or may not care about the other sports.

Now, I am not saying that it should be applied to all sports. It probably doesn't make sense for it to be applied to all sports, particularly in the fashion that's currently

in this program.

Thank you, your Honor.

THE COURT: Thank you.

Mr. Berman, Mr. Mester, any concluding remarks?

MR. BERMAN: Yes, your Honor. First of all, I am going back to your questions about notice. I don't know if you want more information. You got plenty of information. But there is a case called In Re Student Likeness Litigation about using students. And we have sent out notice there. It's been approved by Judge Wilken and we can show you the notice plan. I think Gilardi was also involved in that.

And there is a request going out to the universities I think next week in that case very similarly to what's being done here.

THE COURT: And I can find that on the docket, can't I?

MR. BERMAN: I think it will be easier if we did it for you. But if you want to try, but I will be glad to have it -- write you a letter identifying on the docket. The docket is enormous.

THE COURT: Why don't you go ahead and file that. Thank you.

MR. BERMAN: To the extent that you have concerns that we didn't have a non-contact representative, we do have clients who are non-contact clients. We had a runner, for example,

who's about to file a case but was afraid publicity and the coach. But we have others.

We could if you wanted make a motion to have them added as plaintiffs. We can sit down with Judge Andersen. We can -- the NCAA, they agreed to do this. And we could have them go through the settlement process from their eyes. Something for you to consider while you are pondering your decision.

Unless you have any further questions for me, I am done. I appreciate your time.

THE COURT: Thank you.

MR. MESTER: Your Honor, nothing further. We are perfectly willing to do that with a non-contact sport person if that remains a concern of the Court.

THE COURT: I mean, I think that with regard to that, it does raise kind of some interesting issues as to how much is enough, right? And I don't know whether -- well, I guess at this point I don't know the answer to that. And probably the parties are better suited to really kind of think about that as we go forward. Thank you.

MR. MESTER: Thank you, your Honor.

THE COURT: So at this point in time, I want to thank the counsel for the comments today. It was very helpful to me in trying to digest the proposed settlement. And I thought the responses to my questions were very useful and productive. So

I appreciate everyone's participation today at the hearing.

At this point in time, the motion for preliminary approval will remain under advisement, and we will issue a ruling.

Thank you.

(Which were all the proceedings had at the hearing of the within cause on the day and date hereof.)

CERTIFICATE

I HEREBY CERTIFY that the foregoing is a true, correct and complete transcript of the proceedings had at the hearing of the aforementioned cause on the day and date hereof.

/s/Alexandra Roth _____ 10/24/2014

Official Court Reporter
U.S. District Court
Northern District of Illinois
Eastern Division

Date